

Date: Tue, 22 Jun 93 09:30:29 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #763  
To: Info-Hams

## Today's Topics:

1.2 GHz repeater - info sought  
5A0RR Operating Practices  
6 meter and telephone RFI  
6 Meter Telephone RFI  
IP Report/ Pse add your input to data base  
Heath keyer ID help  
you view a TAR file? .... The Answer  
Making home HAM Friendly  
TER E-SKIP@6/22/93 & During Contest Rpt.  
Poor Operating Practice By 5A0RR  
TM 732 MOD Matrix Question

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available (by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: 22 Jun 93 13:59:50 GMT  
From: usc!howland.reston.ans.net!newsserver.jvnc.net!netnews.upenn.edu!  
eniac.seas.upenn.edu!depolo@network.UCSD.EDU  
Subject: 1.2 GHz repeater - info sought  
To: info-hams@ucsd.edu

Anyone out there in netland have a 1.2 GHz repeater on the air? I'm looking for comments/suggestions for antennas and duplexers (if anyone makes them). Thanks.

--- Jeff

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Jeff DePolo WN3A Twisted Pair: (215) 337-7383H 387-3059W  
depolo@eniac.seas.upenn.edu RF: 443.800+ MHz 442.700+ MHz 24.150 GHz  
University of Pennsylvania

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Date: Tue, 22 Jun 1993 14:26:21 GMT  
From: swrindle!cs.utexas.edu!convex!news.utdallas.edu!corpgate!nrtpa038!  
harp@network.UCSD.EDU  
Subject: 5A0RR Operating Practices  
To: info-hams@ucsd.edu

I agree that someone should have a heart to heart talk with Romeo about his operating practices. He states in accounts of other DX-peditions that he has to spread them out in order to separate them enough to pick them out. Well 100KHZ is a bit much. He should find a better way.

There are alot of rumors flying around about this expedition.  
I have to wonder what really happened?

\*\*\*\*\*  
\* Alan Harp K4PB \* Bell-Northern Research \* CW FOREVER \*  
\* mail: harp@bnr.ca \* Research Triangle Park, NC \* \*  
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Date: Tue, 22 Jun 1993 10:59:17 GMT  
From: usc!cs.utexas.edu!utnut!torn!csd.unb.ca!UPEI.CA!seeler@network.UCSD.EDU  
Subject: 6 meter and telephone RFI  
To: info-hams@ucsd.edu

RE: 6 meter Telephone RFI:

Forgot to mention -

Station is in the basement, NO INTERFERENCE to my phones, televisions or any other device in MY house. I have an appropriate low pass filter within 2 inches of the rig and I use ground braid from as copper bus ( pipe) in the station to the 8 foot ground rod -. There is some harmonuic ( 2nd) radiation from the ground rod ( as measured by a sony walkman - audible for 20 feet from the rod).

Thanks Dave

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Date: Tue, 22 Jun 1993 10:53:56 GMT  
From: swrinde!cs.utexas.edu!utnut!torn!csd.unb.ca!UPEI.CA!seeler@network.UCSD.EDU  
Subject: 6 Meter Telephone RFI  
To: info-hams@ucsd.edu

I have a quick question about 6 Meter interference to a telephone. I have the ARRL handbook and RFI book as well as the info from the server and I am slowly going through that information. I hope that the problem can be solved with the info that is there.

Situation:

Sun eve - was on 6 working Michigan stations when my neighbour came over and said that I was audible in two of their phones ( they have 7 - hopefully not bad news ). I stopped operating and went to the books. I have a game plan in mind as per the ARRL recommendations but have one primary question:

Has anyone found any particular filter or solution particularly helpful for 6 meter or VHF RFI ? Suggestions are welcome.

I would like to solve it as openings have been rare on PEI this year and I suspect that I am not the only one that would like to chat on 6 to/from PEI :-).

I am also getting into their FM baby monitor ( it operates at 49.99 Mhz ) but I am less hopeful of solving that one due to its probable WIDE Front end - but will try.

My ground is about 3 meters from the rig ( as close as I can get), on the same side of my house as the neighbour. Would a 1/4 wave counterpoise on the rig help?

Please direct comments to Seeler@UPEI.ca - as I will be on vacation for the next 3 weeks. Hope it is time spent operating - not fixing.

73 and thanks..... Dave

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Date: Tue, 22 Jun 1993 13:47:04 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!  
sol.ctr.columbia.edu!NewsWatcher!user@network.UCSD.EDU  
Subject: 93 VHF E-SKIP Report/ Pse add your input to data base  
To: info-hams@ucsd.edu

1993 E-SKIP

MUCH MISSING DATA IN LATE 92 and EARLY 93 to be filled in later by W1DGA

MAR08 AU 830+-PM EST AU on 2M to W8,W2,W1 etc  
JUN02 6EE W3&W4 DC area to Azors , note w5 to Azors at same  
time, plus hearing botrh sides!  
JUN03 6E DC area to Cuba C02KK  
JUN04 6AU Weak AU to VE3 & W2  
JUN05 6EE Midatlantic to CT0 and rpts of EH (Spain)  
JUN06 10EE Only got to 10 meters, to CT land  
JUN07 6E MD>Fla & W5?  
JUN09 6E Chicago>TEX@3:31 GMT-from BBS  
JUN09 2E LA>WHY & CO at approx. 0600 GMT-RPT on BBS  
JUN11 6E MD>VE4,VE2,K0,FLA  
JUN12 6E MD>9Y4,HH2,C02,VP2E,  
JUN12 2E MD>MO &KAN, quick opening. W0JRP in MO.-Rpt of W3ZZ during  
VHF contest  
JUN13 6E MD>TEX  
JUN13 6EE EAST Coast>1813-1837Z, G,DK,PA,S59UN,SM7+0X Beacon @0240Z &  
0X3LX in also.GB3SIX Beacon@0319Z+1HR later.Rumors of W1>Russia/UA1.  
JUN15 6E FLA.NE&VA@9:10-9:15PM+MD>ARK,FLA, FLA>MD@12:20PM  
JUN16 2E 0140-0141Z(GMT 17th). N.III>TEx.. AA9D>EL09  
JUN16 6EE MD>TEX@7:10PM+NEW MEX(DM62)+Also LOU,KAN,ARIZ,  
Jun18 2E MD/VA>E.Texas. Dallas &Houston .  
Area. Grids 29,00,12-K4HJF data. 8:15-9PM local  
JUN21 2E MD/VA to Midwest area, MO+. Approx 5 (all different grids)  
stations in weak.Action just before 9PM local. W0QP,WBQCLL,N0LL,K0TLM,KW0T,  
EM29,EM09,EM28,EM16?  
JUN21 6E CT3>GA & Wash State rpt on 28.885+MD>Utah and midWest+VE#  
beacon heard during CT3 into other areas!

If you enjoy Ham Radio, Fruit trees and exotic fruit, and photos from 1800s  
as well as old cameras and oriential cultural things, then you are a  
potential friend, so contact me. W1DGA on HF(28.885), 2M SSB, 6M SSB, 432 &  
1296 SSB.

Researching family names:Bolt;Barkwill/Balkwill/Buckwill  
/Barkwell(England/Canada/USA);Gagnon;Garrah(Canada);Bowman;Cross;Fishleigh;Rockey  
(England). Clark and Buxton on other side.

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Date: Tue, 22 Jun 1993 15:33:47 GMT

From: usc!cs.utexas.edu!gerald.cc.utexas.edu!portal.austin.ibm.com!

awdprime.austin.ibm.com!prism.austin.ibm.com!wme@network.UCSD.EDU

Subject: Heath keyer ID help

To: info-hams@ucsd.edu

In article <R10D6B1w165w@opus-ovh.spk.wa.us> bmork@opus-ovh.spk.wa.us (Brian) writes:

>I'm looking for a keyer and came across two that were for sale.  
>One is a HD-10 and one is a HD-1410. I don't have a Heathkit catalogue  
>to look these up.

>

>I remember two: One was kind of long and skinny, with a sloping top.  
>It was "cream and green", with tubes on the inside. I think it had  
>an external speaker. The other was smaller, about the size of a  
>computer keyboard keypad section. It had a grid of numbers and other  
>selections on the top and the two paddles coming out the front were,  
>I think, removable.

>

>Is my memory correct? Which model number goes with which? Is there  
>even another model that I've never seen?

>

>---

>Brian Mork Internet bmork@opus-ovh.spk.wa.us  
> . . . . Amateur Radio ka9snf@wb7nnf.#spokn.wa.usa  
>.. . . . USMail 6006-B Eaker, Fairchild, WA 99011

The HD-10 is all solid-state, has a built-in speaker and paddle (using dip switches as contacts). It's probably the "long and skinny, with a sloping top" one you described. I used one for years with an external paddle, and was pretty happy with it. That one may not be compatible with newer rigs, but I'm not sure.

I believe the HD-1410 could be the memory keyer they came out with. The paddles are touch-sensitive, and I believe it is compatible with newer rigs. The keyer is iambic-only--there is no way to switch to "non-iambic" mode.

Will Edwards, WA5WZA  
wme@austin.ibm.com

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Date: 22 Jun 93 12:15:40 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: How do you view a TAR file? .... The Answer  
To: info-hams@ucsd.edu

First I would like to thank everyone that responded to my request for information about viewing a TAR file. I would have responded to each of you personally but I accidentally deleted the file with all

the posts about TAR files.

Here is a summary of what I learned.  
The file CHUrcvr.tar.Z is available for anonymous  
FTP from UCSD.EDU and is in sub directory  
hamradio.

The .Z extension is a UNIX compressed file and to  
uncompressed it just use the command;

uncompress CHUrcvr.tar.Z

I used kermit to get the CHUrcvr.tar file from my  
UNIX account to my DOS computer.

Next I used the following command in DOS;

tar -fxv CHUrcvr.tar

The tar.exe program is available from  
oak.oakland.edu via anonymous ftp in subdirectory  
/pub/msdos/filutl.

Once again I would like to thank everyone.

73 -- marty -- nr3z skitch@nadc.navy.mil

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Date: Tue, 22 Jun 1993 14:36:44 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!gatech!wa4mei!  
ke4zv!gary@network.UCSD.EDU  
Subject: Making home HAM Friendly  
To: info-hams@ucsd.edu

In article <beerb.18.0@ccmail.dayton.saic.com> beerb@ccmail.dayton.saic.com  
(Bradlee Beer) writes:

>  
>I don't think that putting in ground rods through the poured concrete  
>floor of the ham shack is a good idea, as proposed by several people.  
>The earth will provide a good ground as long as some moisture is available -  
>but given time, the earth under your house will be pretty dry. You  
>certainly want a short run to the ground rod, but put it outside of the  
>house. Preferably, in virgin earth outside of the roof's "drip line", where  
>rain can get to the soil. A heavy braided cable will provide a good signal  
>ground. Bond the signal ground (per the National Electrical Code) to the  
>main electrical ground.

A Code minimum 8 foot rod will reach earth with the same moisture conditions whether it's under the house or beside it. Rain runoff only affects the first foot of soil in most cases. The earth has to be viewed as a sheet resistance, and the more surface engaged by the grounding conductor, the lower the resulting ground connection resistance.

The key to effective grounding is to make contact with as much earth as possible. One of the best ground systems is called the "Ufer" technique after an engineer named Ufer who developed it for the US Army in WWII. The Army needed an effective ground system to protect bomb storage vaults from static and lightning strikes. Mr. Ufer found that a minimum #4 gauge copper wire embedded in a concrete footing or floor gives an effective ground even in dry soil conditions. A 20 foot length of such wire will give a 5 ohm ground connection in soil with a resistance of 1,000 ohms per meter. Rebar works about as well as copper for this purpose, and a mesh mat will work too. The more metal embedded in the concrete, and the larger the square footage of the concrete in contact with soil, the lower the resistance of the resulting ground. The grounding conductors should be embedded a minimum of 3 inches into the concrete for best results. Note that conductors embedded in concrete corrode much less rapidly than those in soil, so your ground will maintain it's characteristics for many more years if done this way.

Concrete never really "dries". Even old concrete maintains a high moisture content and has a pH of greater than 7 which means ions are available for conduction. This makes it a conductor better than "dry" soil. To reduce the sheet resistance of the earth connection, large contact areas are required. By embedding conductors in concrete, better results are obtained than with a few driven rods because much more conducting area is in intimate contact with the soil.

One inch rebar can safely carry 8150 amp surges and 1/2 inch rebar can carry 4500 amps for each foot of embedded rebar in a Ufer grounding system. Since most lightning strikes don't exceed 18,000 amps surge, a few lengths of rebar are sufficient to carry the current without danger of the concrete "exploding". However, for equipment protection, and effective RF grounding, much more than the minimum lengths of Ufer conductor should be used. I'd shoot for a ground resistance under one ohm, and that would require at least 100 feet of Ufer conductor embedded in footers or concrete flooring.

The Ufer ground is a Code approved alternative to driven rods for "made" grounds. And it's much more effective for RF than a Code approved ground rod alone. That's because most RF coupling to Earth is via capacitance, and the Ufer's greater area results in more

capacitance than can be easily obtained with driven rods.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: Tue, 22 Jun 1993 12:32:38 GMT  
From: usc!math.ohio-state.edu!sol.ctr.columbia.edu!NewsWatcher!  
user@network.UCSD.EDU  
Subject: More 2 METER E-SKIP@6/22/93 & During Contest Rpt.  
To: info-hams@ucsd.edu

Again last night spotty 2 meter Es from MD/Va to Mid West, Mo area. This was 6/21/93 at just before 9 PM local. Approx 5 stations weak burst through in mostly separate grids. Grids available on home records. Will start including 93 E-Skip data base with report soon.

Also last night on 6 Meters, Midwest and Utah were in to Mid Atlantic area. VE3 beacon in for short time along with rpts of CT3 (listen on 28.885) into GA and Washington State.

Also late report of 2 E during this years VHF contest. On Sat. at 1910Z W3ZZ rpts. Kansas and Mo (W0JRP) came in quick and out! This was 6/12/93.  
Dick

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Date: Tue, 22 Jun 1993 13:32:05 GMT  
From: sdd.hp.com!col.hp.com!fc.hp.com!jayk@network.UCSD.EDU  
Subject: Poor Operating Practice By 5A0RR  
To: info-hams@ucsd.edu

: And why not just do CW, the QSOs are faster and he  
: probably would only take 10-15KHz.

CW would take up a lot less space but likely wouldn't be faster. A good phone operator can make around twice as many QSOs per hour.

73, Jay K0GU

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Date: 22 Jun 93 12:35:03 GMT

From: news-mail-gateway@ucsd.edu  
Subject: TM 732 MOD Matrix Question  
To: info-hams@ucsd.edu

Date sent: 22-JUN-1993 07:34:08

A question forwarded from a packet radio operator in Montreal:

RE: TM732 MOD matrix question:

>From : VE2FQH @ VE2PAK.PQ.CAN.NA  
>Subject : Re: TM732 MOD Matrix  
>..... My question is: can we get 10 KHz steps on 800 MHz band and are  
>there any other Bells and whistle that this radio has: like how to get the  
>demo mode or anyother...

>.....  
>Thanking you very much in advance  
>Best of 73

>de Martin VE2FQH

in response to:

>> Modification Matrix for the Kenwood TM-732A

>>

Resistors	TX	TX	Std	Has	Remarks
>>M 22 21 20 19	VHF	UHF	Shift	800Mhz	

>-----

[remaining original msg deleted]

==> can anyone help Martin with this question ?

..Darrell

~~~~~  
Darrell G. Leavitt  
SUNY Empire State College (ESC)      ESC VAX: DLEAVITT  
403 Sibley Hall      Internet: DLEAVITT@SNYESCVA.ESC.EDU  
Plattsburgh, New York, USA, 12901      INTERNET: LEAVITDG@SPLAVA.CC.PLATTSBURGH.EDU  
PHONE : (518) 564-2837      AX25/AMATEUR  
BitNet : LEAVITDG@SNYPLAVA      PACKET: N2IXL @ KD2AJ.#NENY.NY.USA.NA  
Latitude: 44 41 58 N      Longitude: 73 27 12 W  
~~~~~

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Date: 22 Jun 93 09:25:28 -0600

From: swrinde!cs.utexas.edu!math.ohio-state.edu!darwin.sura.net!cs.utk.edu!ornl!  
fnnews.fnal.gov!fnalv.fnal.gov!higgins@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Jun16.101626.2743@sni.co.uk>, <g8Hc6B1w165w@earldom.UUCP>,  
<2060mm\$2qm@usenet.rpi.edu>1

Subject : Re: Apollo & hams (was Re: "If you believe they put a man on the moon")

In article <2060mm\$2qm@usenet.rpi.edu>, strider@clotho.acm.rpi.edu (Greg Moore) writes:

> Once on a talk show I saw a guy who doubted the moon landings.  
> He asked why we didn't bother bringing a couple hundred pounds of a  
> dark powder, like graphite, and spread it in a pattern (like the letters  
> NASA or US I suppose) on the moon. Even at that young age ( I think I  
> was 12 or so (but my gf says I seem to ahve done everything at 12)) I  
> could come up with a half dozen reasons not to. But, thanks to Henry's  
> point about the albedo, I'm even more convinced it was a stupid idea.

The Moon has a low albedo (about .07), so why not bring silvery powder and scatter it around? Or a bag of flour would work.

I've wondered whether one could see the Lunokhod rover tracks, or Apollo rover tracks, in a telescope. They are tens of kilometers long. But they are only a few inches deep, so you'd need a \*really\* low Sun angle. Probably wouldn't work.

Bill Higgins	If we can put a man on the Moon, why can't
Fermilab	we put a man on the Moon? -- Bill Engfer
higgins@fnal.fnal.gov	If we can put a man on the Moon, why can't
higgins@fnal.Bitnet	we put a woman on the Moon? -- Bill Higgins

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Date: 22 Jun 1993 14:47:28 GMT

From: news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1v11ka\$d98@morrow.stanford.edu>, <1vnevs\$nv9@moe.ksu.ksu.edu>, <740722428snx@llondel.demon.co.uk>

Subject : Re: Are we losing our technical abilities?

In article <740722428snx@llondel.demon.co.uk> dave@llondel.demon.co.uk writes:  
>Although the UK has a different licence structure to the US, it is  
>interesting to note that we also have an ongoing debate (via packet radio)  
>on the subject of standards..... While the UK exam questions are not  
>published in advance (the examining body even tries to restrict their  
>circulation by collecting \*all\* the exam papers back afterwards), being  
>multiple choice (aka 'vote for Joe') does make them a lot easier than the  
>old written exam which went out in the late 1970s. (Yes, I did do the 'easy'  
>exam.)

>  
>I have never understood the American system of publishing the entire  
>question pool in advance - or are there so many possible questions that you  
>\*can't\* learn all the answers? I wish my University finals were published

>in advance - would have been a \*lot\* easier :-)

FCC used to keep the exams in US. Then some enterprising guy (I forgot his name) decided to question the candidates as they came out of the FCC office after taking a test. Pretty soon, you could buy books that had the bulk of the questions that showed up in the exams.

Add to this the system of Volunteer Examiner system. Under this system, a team of three volunteers, accredited with a national body such as the ARRL, administer the exam. Some get the questions from the national body while some, like my team, make the exams themselves. How do you guarantee the quality of the exams?

>Bring back some technical requirement to amateur radio world-wide. We have >the allocations because we are supposed to use them for self-training and

Hams on the internet do not represent an average cross section of hams. Many of us are in educational institutions or in technical vocations. We find the theory parts easy. There are others, many not on the network, who find the theory significantly more difficult than CW. I know some one, a retired carpenter, who has passed the Extra CW test many times and has never been able to pass the theory test. I have heard him on the air and he is an excellent operator. I would much rather have him handling traffic during an emergency than many other much more technically inclined people that I know. Having a killer theory test may keep such people out.

dit	1	dit		
	1			
	1			
*****		1		
*	*	1		
*	Rajiv aa9ch/m	*	1	
*	r-dewan @nwu.edu	*	1	
*	CW only on HF bands	*	1	
*****	Icom 735	Ah2, Vibroplex	*	1
**			*1	
**			*1	
*	***	***	*H	
*	*	*	*H	
*****	*****	*****	*****	
***		***		

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Date: 22 Jun 93 14:04:29 GMT

From: usc!howland.reston.ans.net!gatech!concert!duke!news.duke.edu!  
ee.egr.duke.edu!jbs@network.UCSD.EDU

To: info-hams@ucsd.edu

References <rec-radio-info740294845@ve6mgs.ampr.ab.ca>, <1993Jun18.220645.5218@newshost.lanl.gov>, <C8zIJ6.8o1@amdcl2>0  
Subject : Re: Yaesu FT-5100/5200 mods, Rev D

In article <C8zIJ6.8o1@amdcl2> brian@amdcl2.amd.com (Brian McMinn) writes:  
>I just "discovered" the following quirk of the 5100. It probably  
>applies to the 5200 as well. If you've got a copy of the Rev D mods  
>sheet that I posted last week, this is in the same format...  
>  
>Dual 2m receive oddity:

The 5200 does not have dual in-band receive capability.

-joe KD4LLV

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You spend the night  
Like you were spending a dime  
- Lyle Lovett

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Date: 22 Jun 1993 12:34:53 GMT  
From: usc!howland.reston.ans.net!darwin.sura.net!haven.umd.edu!cville-srv.wam.umd.edu!ham@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Jun19.005304.2836@es.dupont.com>, <204u40\$ioe@jericho.mc.com>, <1993Jun22.061413.17345@news.tu-ilmenau.de>  
Subject : Re: Poor Operating Practice By 5A0RR

I'm not saying that it was bad operating practice to use 100 kHz. Ideally, for a station like a 5A, whom nearly everyone needs for DXCC, one would like to spread out the people calling as much as possible, to reduce interference as well as give everyone a chance at a clear frequency.

On 10 meters, if Romeo were listening from 28.600-28.800, nobody would complain because the band is very expansive - 200 kHz isn't that much.

However, on 20 meters, 14.200-14.300 is 100 kHz, right in the middle of a 200kHz wide band! A band that's used for countless traffic handling nets, DX nets, and a million other uses. It's the general purpose ham band!

Still there would be no problem, if the world were perfect, and if a clear frequency REALLY were a clear frequency on BOTH ends of the QSO. If I'm in a QSO with a European station, and I'm talking when somebody calls a couple of brief QRL's, due to the proximity I may not be heard, and

the guy in Europe won't really hear the QRL as he's not really listening for it. So the other American station starts using the frequency.

Normally, this person would LISTEN on the Xmit frequency. However, in split operation, this third person isn't listening when my friend in Europe tells him that he's causing all kinds of QRM, and to please move. Using 100 kHz of the 20 meter band is STUPID because this kind of unavoidable effect happens a LOT, and on the busiest band there is.

Basically, Romeo used 100 kHz to make it easier for everyone to contact HIM. Unfortunately, this was not the goal of everyone sitting between 14.200 and 14.300 MHz, and it was incorrect of him to think that everyone would use the band responsibly.

Scott NF3I

--

73, ----- The  
----- \ / Long Original

Scott Rosenfeld Amateur Radio NF3I Burtonsville, MD | Live \$5.00

WAC CW/SSB WAS 95% of the way to DXCC -----| Dipoles! Antenna!

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End of Info-Hams Digest V93 #763

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